PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Applicant's or agent's file reference 51617	Date of mailing *(day/month/year)* 16 FEB 2007 **FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IL05/00256	03 March 2005 (03.03.2005)	04 March 2004 (04.03.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: **H04Q 7/20**(2007.01),**7/22**(2007.01),**7/24**(2007.01)
USPC: 370/338,349,466;455/432.3,433;709/249

Applicant

OUTSMART LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I — Basis of the opinion
- ☐ Box No. II — Priority
- ☐ Box No. III — Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV — Lack of unity of invention
- ☒ Box No. V — Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI — Certain documents cited
- ☐ Box No. VII — Certain defects in the international application
- ☐ Box No. VIII — Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis(b)* that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US	Date of completion of this opinion	Authorized officer
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	03 November 2006 (03.11.2006)	Patrice Winder Telephone No. 703-305-3900

Form PCT/ISA/237 (cover sheet) (April 2005)

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Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed

☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ on paper

☐ in electronic form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in electronic form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43 *bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-28	YES
	Claims NONE	NO
Inventive step (IS)	Claims NONE	YES
	Claims 1-28	NO
Industrial applicability (IA)	Claims 1-28	YES
	Claims NONE	NO

2. Citations and explanations:

Claims 1-28 the criteria set out in PCT Article 33(4), and thus promotes industrial applicability because the subject matter claimed can be made or used in industry.

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Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:
Claims 1-28 lack an inventive step under PCT Article 33(3) as being obvious over Mukherjee et al., US 2003/0012162 A1 (hereafter referred to as Mukherjee) in view of Wang et al., USPN 6,603,761 B1 (hereafter referred to as Wang)
Regarding claim 1, Mukherjee taught a ommunication apparatus, comprising:
a packet network interface, for coupling to a packet switch in a packet network (paragraph 30);
a telephone network interface, for coupling to a node in a circuit-switched telephone network (paragraph 30); and
a convergence processor, coupled between the packet network and telephone network interfaces and adapted to emulate a mobile switching center (MSC) and a visitor location register (VLR) in the circuit-switched telephone network in the packet network and to connect telephone calls, using assigned telephone numbers, between telephones in the circuit switched network and the user terminals (paragraph 30). Mukherjee does not specifically teach assigning telephone numbers in the circuit-switched telephone network to user terminals. However, Wang taught assigning telephone numbers in the circuit-switched telephone network to user terminals (column 6, lines 12-19). The motivation to combine Mukherjee and Wang would have been to provide call forwarding for roaming callers.
Regarding dependent claim 2, Mukherjee taught the packet network comprises an Internet Protocol (IP) network, and wherein the telephone network comprises a cellular telephone network (paragraph 24).
Regarding dependent claim 3, Wang taught the convergence processor is adapted to assign different, first and second telephone numbers to a given user terminal in the packet network, wherein the first telephone number belongs to the cellular telephone network (column 3, lines 65-66), and the second telephone number belongs to a public switched telephone network (PSTN) (column 6, lines 12-19).
Regarding dependent claim 4, Wang taught the convergence processor is adapted to assign to the user terminals telephone numbers having a first country code, while the user terminals are located in a country having a different, second country code (column 1, lines 16-20; column 6, lines 12-19).
Regarding dependent claim 5, Wang the packet network interface comprises a session border controller, which is operative to perform Network Address Translation (NAT) (column 8, lines 44-51).
Regarding dependent claim 6, Mukherjee taught the telephone network interface comprises a media gateway (paragraph 23).
Regarding dependent claim 7, Mukherjee taught the apparatus according to claim 1, and comprising a softswitch, which is coupled between the packet network and telephone network interfaces and the convergence processor so as to convey instructions from the convergence processor to the packet network arid telephone network interfaces regarding handling of the telephone calls to and from the user terminals (paragraph 28-29).
Regarding dependent claim 8, Mukherjee taught the softswitch is adapted to communicate with the packet network and telephone network interfaces by transmitting and receiving at least one of H.323 or SIP for telephones (SIP-T) packets (paragraph 35). Substituting SIP for H.323 would been an equivalent substitution because both are signaling protocols for IP networks.

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Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

Regarding dependent claim 9, Mukjherjee taught the convergence processor is adapted to receive registration requests from the user terminals and, in response to the registration requests, to register the user terminals in a home location register (HLR) in the telephone network (paragraph 33).
Regarding dependent claim 10, Mukherjee taught the convergence processor is adapted to communicate with the HLR in order to determine respective service profiles applicable to the user terminals (emulate wireless infrastructure, paragraph 30).
Regarding dependent claim 11, Mukherjee taught the convergence processor is adapted, responsively to the service profile, to invoke an Intelligent Network (IN) service in the telephone network that is to be applied to a call (emulate wireless infrastructure, paragraph 30).
Regarding dependent claim 12, the convergence processor is adapted to determine the respective service profiles initially upon registration of the user terminals and to update one or more of the service profiles thereafter while the user terminals are in operation.
Regarding dependent claim 13, Mukherjee taught the convergence processor is adapted to receive from the packet network interface an indication of a request from one of the user terminals to set up a call, and responsively to the indication, to cause the telephone network interface to route the call to a telephone number in the telephone network in accordance with an applicable service profile (paragraphs 28-29).
Regarding dependent claim 14, Mukherjee taught the convergence processor is adapted to receive a request from the HLR for routing information with respect to a call placed from the telephone network to a telephone number that is assigned to a user terminal having a network address in the packet network and, responsively to the request, to cause the packet network interface to route the call to the network address of the user terminal (paragraphs 28-29).
Regarding dependent claim 15, Mukherjee taught the convergence processor is adapted to communicate with the HLR using a Mobile Application Protocol (MAP) (paragraph 28).
The language of claims 16-28 is substantially the same as claims 1-15. Therefore, claims 1-15 lack an inventive step for substantially the same reasons as claims 1-15, above.